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Is the evidence base for guideline recommendations comprehensible?

An analysis of current evidence-based guidelines

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Background

Current guideline standards require that a Level of Evidence (LoE) is allocated to a guideline recommendation to reflect the reliability of the underlying evidence. The underlying literature should also be clearly allocated to the recommendation. To the best of our knowledge, it has so far not been investigated systematically how these requirements are implemented by different guideline developers.

Objectives

To what extent are recommendations from evidence-based asthma and breast cancer guidelines clearly linked to LoE and the underlying literature?

Methods

We conducted a systematic Internet search for evidence-based asthma and breast cancer guidelines published between November 2007 and August 2013. All recommendations included in the guidelines identified were extracted. We documented whether LoE and the underlying literature could be clearly allocated to the recommendations and performed a descriptive analysis of the information extracted.

Results

Systematic search

A total of 38 evidence-based guidelines were identified (asthma: 12; breast cancer: 26) (figure 1).

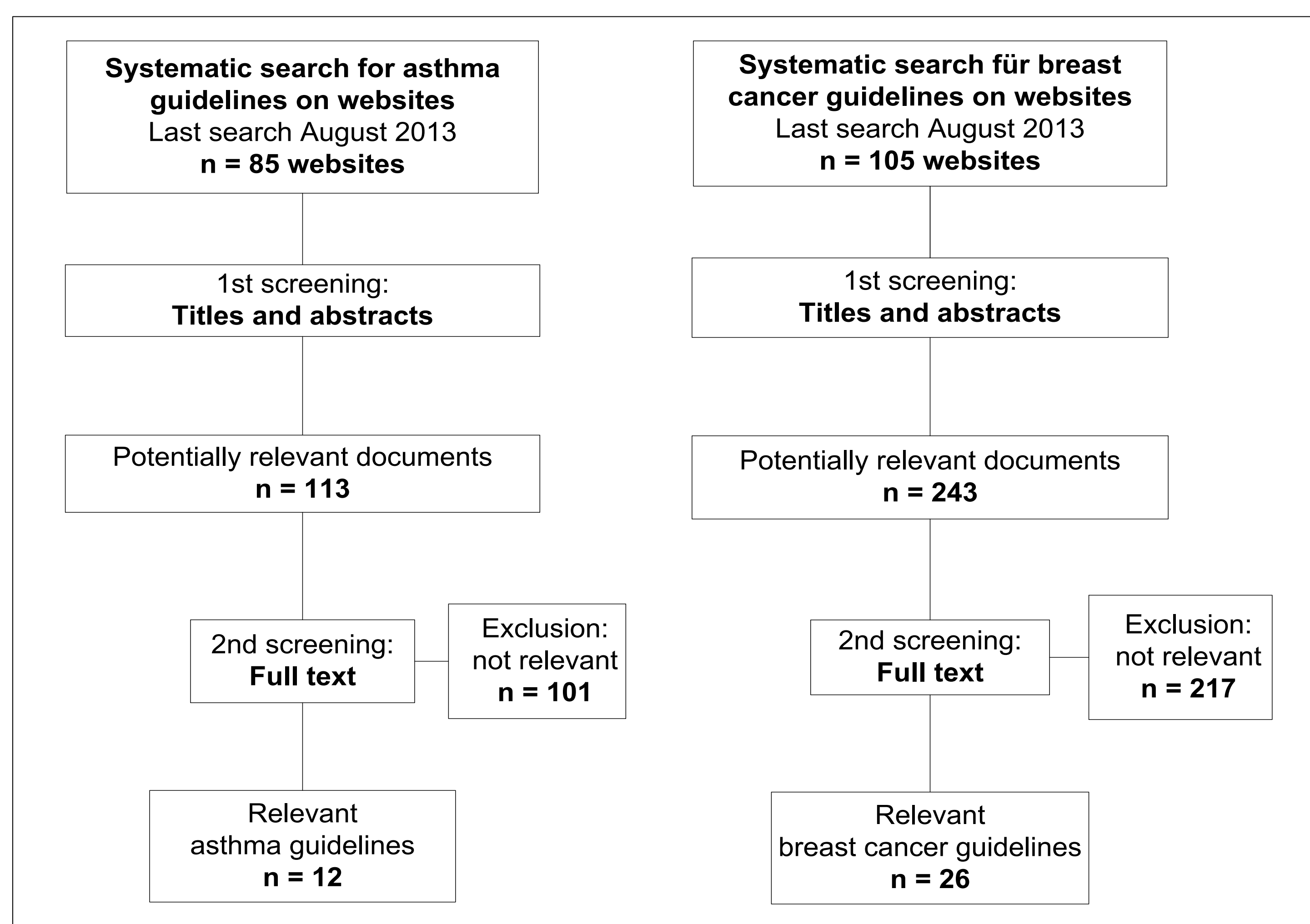
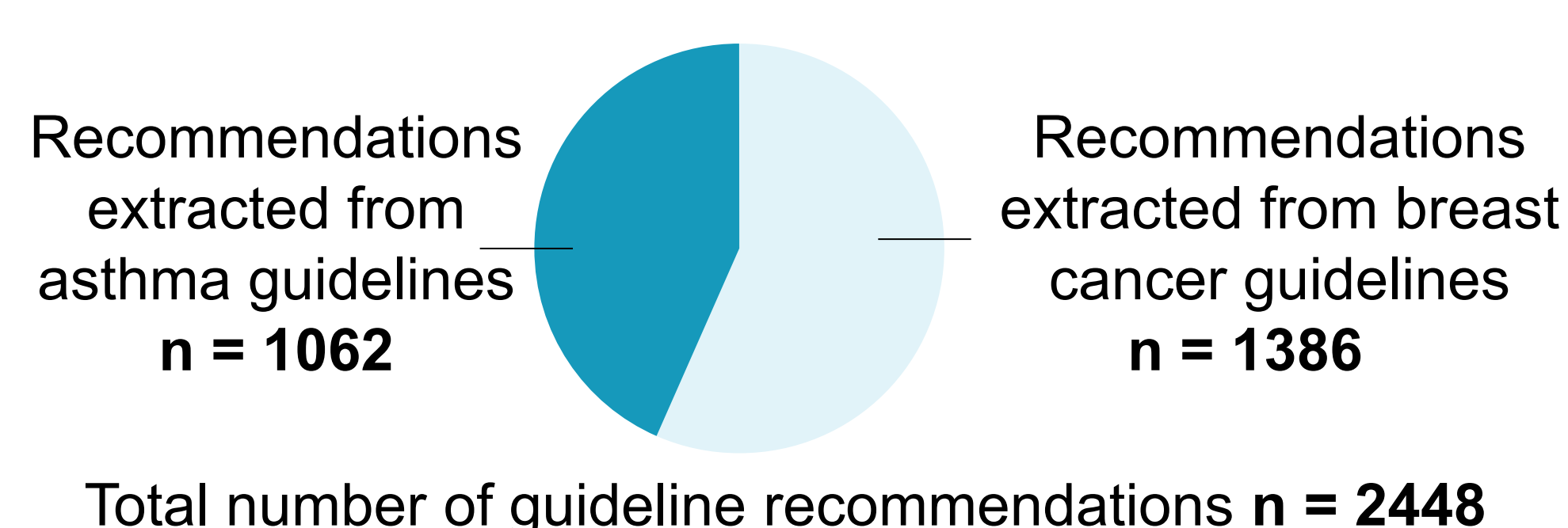


Figure 1: Search results

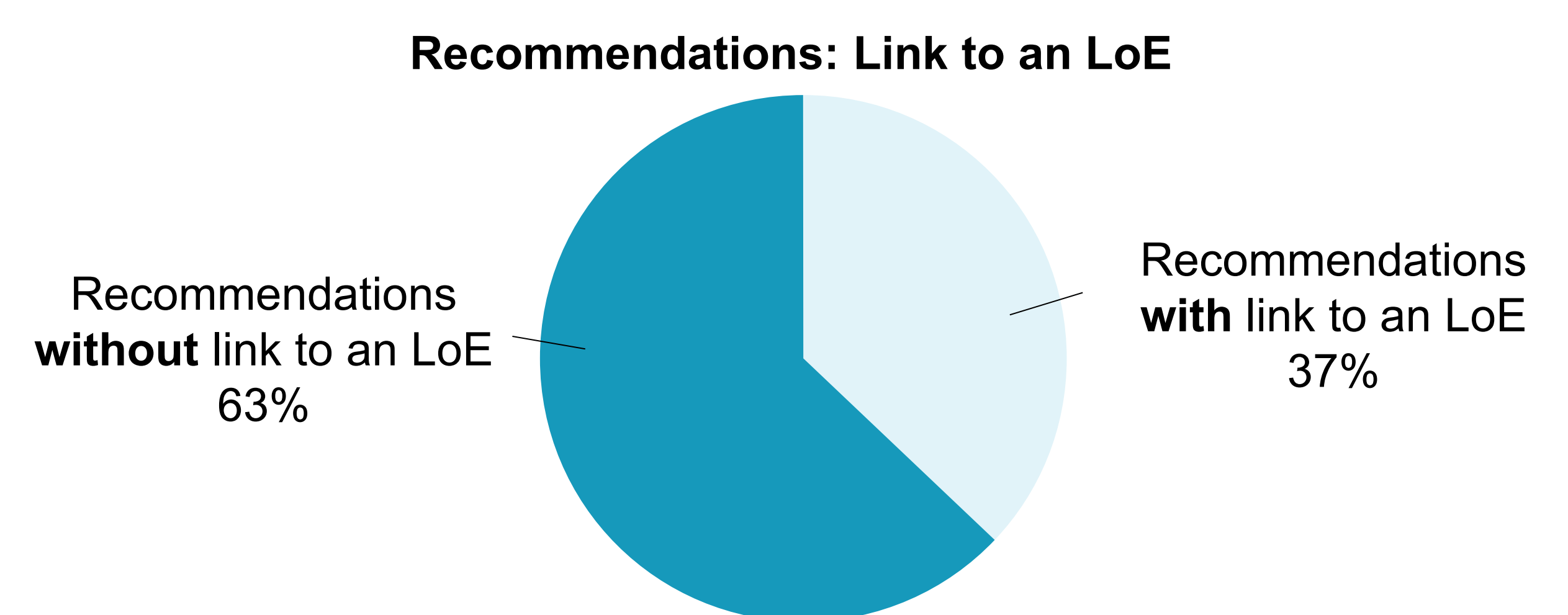
Total number of guideline recommendations extracted

A total of 2448 recommendations were extracted (asthma: 1062; breast cancer: 1386).



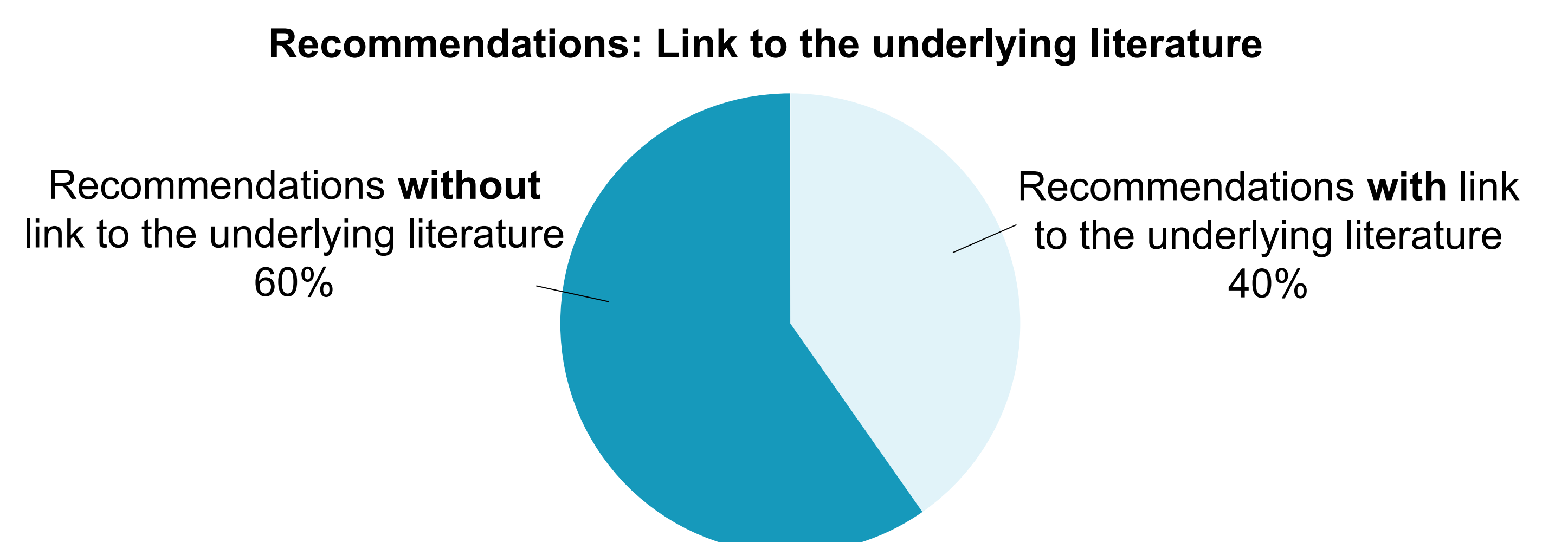
Percentage of recommendations with a clear link to an LoE

37% (n = 908) of the 2448 recommendations were clearly linked to an LoE (asthma: 561 of 1062 recommendations [53%]; breast cancer: 347 of 1386 recommendations [25%]).



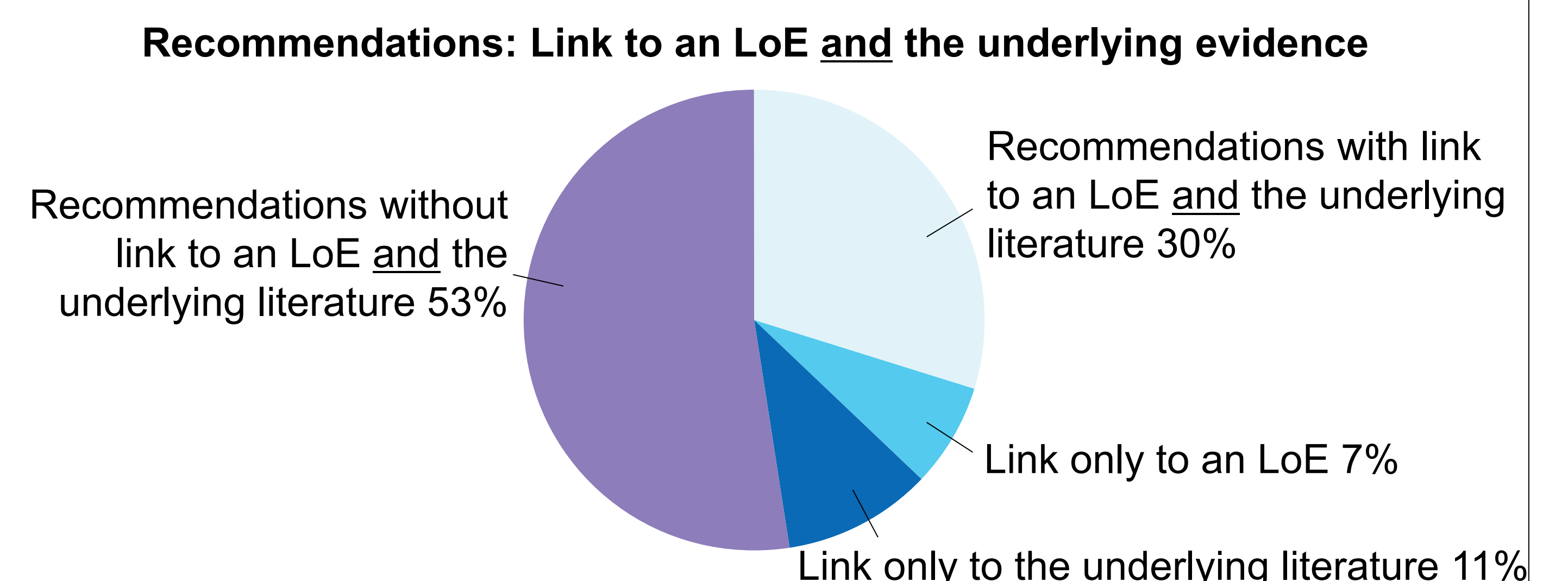
Percentage of recommendations with a clear link to the underlying literature

40% (n = 986) of the 2448 recommendations were clearly linked to the underlying literature (asthma: 53% [n = 582]; breast cancer 29% [n = 404]).



Percentage of recommendations with a clear link to an LoE and the underlying literature

Only 30% (n = 730) of the 2448 recommendations were clearly linked both to an LoE and to the underlying literature (asthma: 44% [n = 463]; breast cancer 19% [n = 267]). 53% of the recommendations were linked neither to an LoE nor the underlying literature (asthma: 36% [n = 382]; breast cancer: 65% [n = 902]).



Discussion

The evidence base of recommendations is not clearly comprehensible in more than half of the guideline recommendations analyzed.

Implications

To enable better assessment of guideline recommendations, international standards on the linkage of guideline recommendations with the underlying evidence should be implemented more rigorously.

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